Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming	)))	MB Docket No. 04-227

ELEVENTH ANNUAL REPORT

Adopted: January 14, 2005 **Released: February 4, 2005**

By the Commission: Chairman Powell issuing a statement; Commissioners Copps and Adelstein concurring and issuing a joint statement.

TABLE OF CONTENTS

Paragraph

I. INTRODUCTION

1. This is the Commission's eleventh annual report (*2004 Report*) to Congress on the status of competition in the market for the delivery of video programming.[1] Section 628(g) of the Communications Act of 1934, as amended (Communications Act), requires the Commission to report annually to Congress on the status of competition in the market for the delivery of video programming.[2] Congress imposed this annual reporting requirement in the Cable Television Consumer Protection and Competition Act of 1992 (1992 Cable Act)[3] as a means of obtaining information on the competitive status of the market for the delivery of video programming.

A. Scope of this Report

2. We report on trends in the market and on the factors that have facilitated or impeded changes in the competitive environment over the past year. Further, we offer information and analysis regarding changes in the market since the *2003 Report*, and we describe how those changes affect the current state of the market. The information and analysis provided in this *Report* are based on publicly available data, filings in various Commission proceedings, and information submitted by commenters in response to a

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[1] The Commission's previous reports appear at: *Implementation of Section 19 of the 1992 Cable Act (Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming), 1994 Report*, 9 FCC Rcd 7442 (1994); *1995 Report*, 11 FCC Rcd 2060 (1996); *1996 Report*, 12 FCC Rcd 4358 (1997); *1997 Report*, 13 FCC Rcd 1034 (1998); *1998 Report*, 13 FCC Rcd 24284 (1998); *1999 Report*, 15 FCC Rcd 978 (2000); *2000 Report*, 16 FCC Rcd 6005 (2001); *2001 Report*, 17 FCC Rcd 1244 (2002); *2002 Report*, 17 FCC Rcd 26901 (2002); and *2003 Report*, 19 FCC Rcd 1606 (2004).

[2] Communications Act of 1934, § 628(g), 47 U.S.C. § 548(g).

[3] Pub. L. No. 102-385, 106 Stat. 1460 (1992).

Notice of Inquiry (*Notice*) in this docket.[4] We do not require data submissions nor do we audit data provided. We report data and other information as submitted by the commenters.[5] We did not receive any information on a number of issues raised in the *Notice* (*e.g.*, information on video delivery in foreign markets, technical issues, cable horizontal ownership, delivery method of programming networks), and very limited information on other issues (*e.g.*, ownership of nonbroadcast networks, private cable operators, locally and community-oriented programming). If we continue to find that we do not get the necessary data from industry participants, we may pursue additional mandatory data collection processes to ensure that we have appropriate information to fulfill our statutory mandate to provide Congress with an annual assessment of the status of competition in the video marketplace.

3. In Section II, we examine the cable television industry, existing multichannel video programming distributors (MVPDs) and other program distribution technologies and potential competitors to cable television. Among the MVPDs discussed are direct broadcast satellite (DBS) services and home satellite dishes (HSD), broadband service providers (BSPs), broadcast television service, wireless cable systems using frequencies in the multichannel multipoint distribution service (MMDS), and private cable operators (PCOs). We also consider other existing and potential distribution technologies for video programming, including local exchange carriers (LECs) and utilities, home video sales and rentals, and the Internet. In Section III of this report, we examine market structure and competition. We evaluate horizontal concentration in the multichannel video marketplace, vertical integration between programming services and distribution systems, and competitive issues in small and rural markets. We also address numerous technical issues regarding navigation devices, emerging services, and cable modems. Finally, we review briefly several developments in foreign markets.

B. Summary of Findings

1. The Current State of Competition: 2004

4. In the *2003 Report*, the Commission recognized that competition provides consumers with increased choice, better services, higher quality, and greater technological innovation. The *2003 Report* found that, overall, the level of competition among video providers had increased dramatically since our first *Report* in 1994. Most notably, cable operators served almost 100 percent of the nation's MVPD subscribers a decade ago, but by June 2003, cable's share of MVPD subscribers declined to 74 percent.[6] As of June 2004, cable operators served approximately 72 percent of all MVPD subscribers. Today, almost all consumers have the choice between over-the-air broadcast television, a cable service, and at least two DBS providers. In some areas, consumers may also choose between other traditional (*e.g.*, broadcasting, cable, DBS) and emerging (*e.g.*, use of digital broadcast spectrum, fiber to the home, video over the Internet) delivery technologies as well. Increased competition in the market for the delivery of video programming since our first *Report* has led to improvements in cable television services, including more channels of video programming and more service options, but generally not lower prices.[7] In addition, through the use of advanced set-top boxes and digital video recorders, consumers are now able to maintain more control over what, when, and how they receive information.

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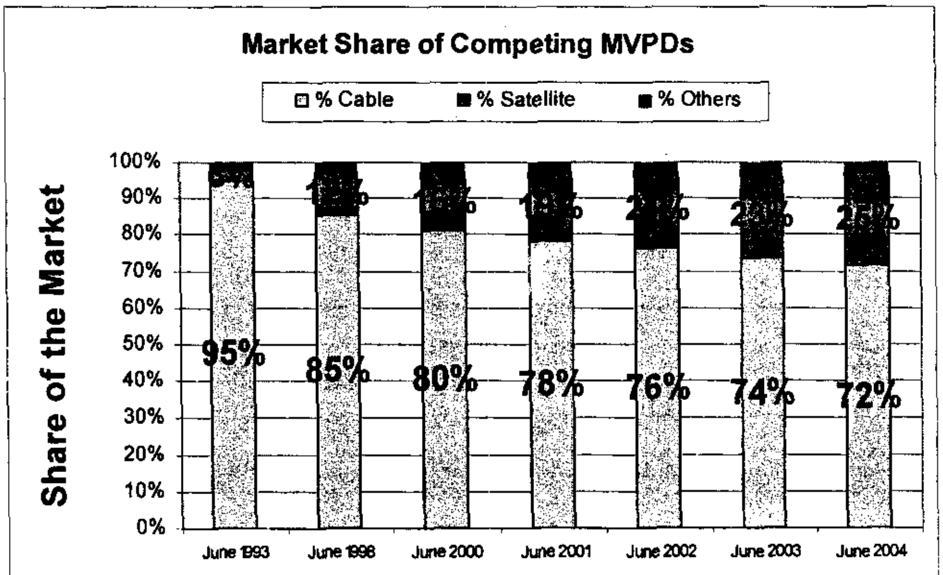
[4] *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, 19 FCC Rcd 10909 (2004) (*Notice*). Where possible, we requested data as of June 30, 2004.

[5] Appendix A provides a list of commenters and the abbreviations by which they are identified herein.

[6] *See* Appendix B, Table B-1. We have revised data for the number of cable subscribers for June 2003 to use a consistent source.

[7] *See Implementation of Section 3 of the Cable Television Consumer Protection and Competition Act of 1992, Statistical Report on Average Rates for Basic Service, Cable Programming Service, and Equipment*, MM Docket No. 92-266, FCC 05-12 (adopted Jan. 14, 2005) (*2004 Price Survey*); *See also* paras. 26-27 *infra*.

5. The *2004 Report* discusses changes that have occurred in the competitive environment over the last year. Overall, we find that cable subscribership is remaining relatively stable as the MVPD market grows; thus, cable's share of the MVPD market is declining. In contrast, DBS subscribership continues to increase at nearly double-digit rates of growth, and its share of the marketplace is increasing. The second and fourth largest MVPDs are both DBS operators. In addition, other delivery technologies continue to serve small numbers of subscribers in limited areas. LECs, who have partnered with DBS providers to offer video service over the last year, have recently announced plans to enter the video distribution market with fiber facilities.



Sources: Table B-1 *Infra*; *2003 Report*, Table B-1,

6. Based on the information presented in this *Report*, we find that consumers today have viable choices in the delivery of video programming, and they are exercising their ability to switch among MVPDs.[8] We do not believe that the fact that large numbers of consumers continue to subscribe to cable service indicates a lack of choice. Cable operators in response to the growth of DBS have made upgrades and advances in their offerings.[9] The number of cable subscribers selecting digital tiers and advanced services not offered by DBS continues to grow. In addition, consumers are more likely to consider switching from cable to DBS when they change their residences, indicating a convenience factor and the cost of switching, rather than a lack of choice, is an important consideration in remaining a cable subscriber.

[8] *See also Time Warner Says Price Cuts Possible*, FINANCIAL TIMES, Oct. 5, 2004; *Cable's Competition*, CABLEFAX DATABRIEFS, Sept. 20, 2004; David Lieberman, *Study: Cable Losing Steam*, USA TODAY, Aug. 24, 2004, at 1B; David Lieberman, *Cable Companies' Subscriber Base Sinks, While Satellite Firms Soar*, USA TODAY, Aug. 11, 2004, at 3B; Ken Belson, *Two Big Cable Companies Report Losses Amid Competition*, NEW YORK TIMES, Aug. 10, 2004, at C4; Peter Grant, *Cable Trouble: Subscriber Growth Stalls as Satellite TV Soars*, WALL STREET JOURNAL, Aug. 4, 2004, at B1; *Cable Penetration Slips, DBS Rises*, BROADCASTING & CABLE TV FAX, Aug. 5, 2004, at 2; Chris Walsh, *Comcast Fighting Back: Growing Competition Spurs Strategy of New Services, Innovation*, ROCKY MOUNTAIN NEWS, July 1, 2004; Ronald Grover and Tom Lowry, *Satellite's Hot Pursuit of Cable*, BUSINESS WEEK ONLINE, May 24, 2004, at http://www.businessweek.com/@@3Be8T4QQU*TiBhkA/magazine/content/04_21/b3884059.htm (visited Jan. 14, 2005).

[9] *See* fn. 299 *infra;* U.S. General Accounting Office, *Issues Related to Competition and Subscriber Rates in the Cable Television Industry*, GAO-04-8 (Oct. 2003) at 10 (2003 GAO Report).

2. General Findings

7. Most MVPD subscribers continue to receive their video programming from a franchised cable operator, but cable's market share continues to decline. In June 2003, 73.6 percent of MVPD subscribers received their video programming from a franchised cable operator, and by June 2004, 71.6 percent of MVPD subscribers received their video programming from a franchised cable operator. At the same time, DBS's share increased from 22.7 percent of MVPD subscribers in June 2003, to 25.1 percent of MVPD subscribers in June 2004. The number of MVPD subscribers choosing all other delivery technologies represented 3.3 percent of all subscribers in June 2004, as compared with 3.7 percent in June 2003.

8. While the number of subscribers to cable television has increased slightly since the *2003 Report*, the total number of subscribers to MVPD services generally has increased at a more rapid pace. A total of 89.8 million households subscribed to multichannel video programming services as of June 2003, compared to 92.3 million households subscribing to MVPDs in June 2004, an increase of about 2.8 percent. This subscriber growth represents slightly less than a one percentage point increase in the percent of television households subscribing to an MVPD, from 84.2 percent as of June 2003 to 85.1 percent as of June 2004.[10]

9. Last year we reported a decline in the number of cable subscribers. This year we report that cable subscribership has increased only slightly, but now constitutes a smaller portion of the video programming market. As of June 2003, there were 66.05 million cable subscribers, representing 73.6 percent of all MVPD subscribers. As of June 2004, there were 66.1 million cable subscribers, representing 71.6 percent of all MVPD subscribers.

10. During the same period, the total number of noncable MVPD subscribers grew from 22.3 million in June 2003 to 26.2 million in June 2004, an increase of 17.7 percent. DBS subscribership, in particular, continues to grow at double digit rates. Between June 2003 and June 2004, the number of DBS subscribers grew from about 20.4 million households to about 23.2 million households. DBS's continued growth is due in part to the continued increase in the number of markets where local broadcast television stations are distributed by DBS under the authority granted to them by the Satellite Home Viewer Improvement Act of 1999 (SHVIA).[11]

11. Over the last year, subscribership to large dish satellite service (HSD) continued to decline. In June 2004, subscribers to HSD services represented only 0.36 percent of all MVPD subscribers, compared to June 2003, when 0.56 percent of all MVPD subscribers received their service via HSD. Although the participation of LECs has been limited in recent years, several LECs have announced their intent to re-enter the video distribution market in the next several years using fiber facilities. The number of subscribers receiving their video programming from a wireless (MMDS) operator remained steady over the past year at about 0.22 percent of MVPD subscribers, and MVPD subscribers served by private cable operators (PCOs) has declined slightly over the last year, from a 1.3 percent to 1.2 percent of all MVPD subscribers.

12. Cable multiple system operators (MSOs) and other MVPDs continue to offer nonvideo advanced services. Some cable operators continue to offer access to the Internet through the subscriber's television and a specially designed set-top box, but the most popular way to access the Internet over cable is through the use of a cable modem and personal computer. As of June 2003, there were more than 13.7

[10] The number of MVPD households reported here, and the associated percentages, may overstate actual values because a household that subscribes to more than one MVPD (*e.g.*, cable and DBS) is included as a subscriber to both services. *See 2003 Report*, 19 FCC Rcd at 1610 n.8.

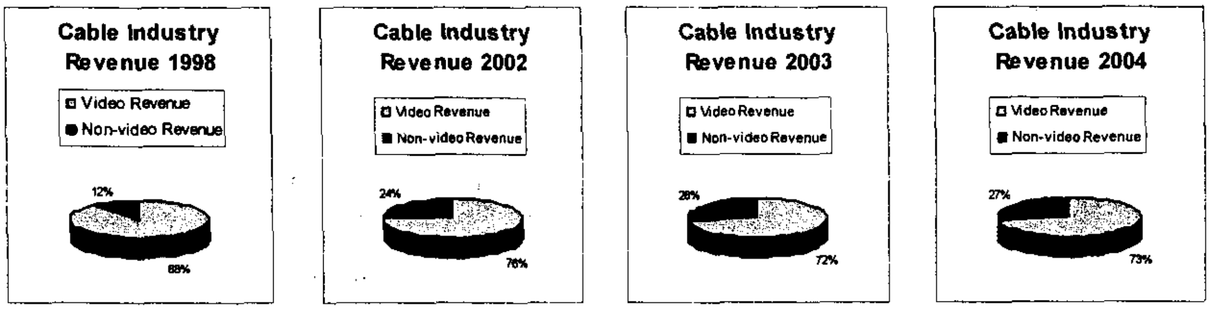
[11] Pub. L. No. 106-113, 113 Stat. 1501, 1501A-526 to 1501A-545 (1999).

million cable modem Internet access subscribers. As of June 2004, there were about 18.5 million cable modem Internet access subscribers. A majority of MSOs offering telephone service are offering facilities-based service, some using voice over Internet Protocol (IP) based services. Some MSOs continue to offer circuit-switched resale telephone service. As of year-end 2003, cable operators were serving approximately 2.8 million subscribers with telephone service.

13. BSPs continue to offer a package of video and nonvideo services over their advanced fiber networks, and many MMDS and private cable operators offer nonvideo advanced services in addition to their primary video offerings. As we reported in the *2003 Report*, the DBS industry is continuing to develop ways to bring advanced services to its customers. DIRECTV continues to offer one-way and two-way satellite-delivered Internet service under the brand name DIRECWAY. We note that DIRECTV has scaled back its plans to use SPACEWAY satellites to offer broadband services.[12] EchoStar, which has offered satellite-based Internet services in the past, no longer offers its own service. DIRECTV and EchoStar continue to develop strategic marketing alliances with local exchange carriers to offer an integrated digital satellite and DSL service. These agreements allow for single billing and discounts for subscribers to both services.

14. More specific findings as to particular distribution technologies operating in the market for the delivery of video programming include the following:

- *Cable Systems*: Subscribership to cable television services has remained relatively static over the past year. Between June 2003 and June 2004, there was only a 0.08 percent increase in subscribership from 66.05 million subscribers to 66.1 million subscribers. As we reported last year, some cable operators have lost subscribers since our last *Report*, while others have increased their subscribership. This year, many cable operators have reported quarterly losses in subscribership, while reporting small overall, year-to-year increases. Nevertheless, the industry continues to grow in terms of revenue (an approximately 11 percent increase between June 2003 and June 2004); collective, all-day audience shares for nonbroadcast networks (which rose from an average 55 share during the 2002-2003 television season to an average 56 share during the 2003-2004 television season); and spending on programming. The cable industry has upgraded almost 91 percent of its plant to 750 MHz capacity or higher. As a result, cable continues to offer increased channel offerings and new advanced services, including video-on-demand and home networking, in addition to such advanced services as high-speed Internet access and telephony.



Sources: Table 4 *infra*; *2003 Report*, Table 4.

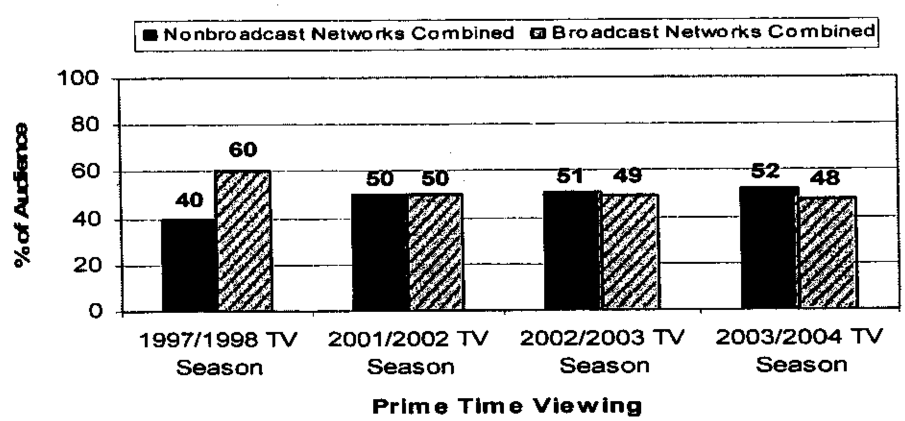
[12] Andy Pasztor, *DIRECTV to Write Down Value of Internet-Via-Satellite Effort*, THE WALL STREET JOURNAL, Oct. 25, 2004, at B5.

- *Direct-to-Home (DTH) Satellite Service (DBS and HSD)*: DBS continues to increase its share of the MVPD market, while other MVPDs continue to experience losses in market share. As of June 2004, DBS represented a 25.1 percent of all MVPD households, and DIRECTV and EchoStar rank among the four largest providers of multichannel video programming service. In June 2004, DBS operators had over 23.16 million subscribers, an increase of close to 14 percent since the *2003 Report*. HSD represents another 0.36 percent of all MVPD subscribers as of June 2004, with approximately 335,800 subscribers to HSD services, as measured by the number of HSD users that actually purchase programming packages.

- *Broadband Service Providers (BSPs)*: BSPs are entities that compete with existing cable systems using state-of-the-art networks that are capable of providing a package of video and nonvideo services. BSPs, many of which also operate as competitive LECs, are the primary open video system (OVS) certification holders, a regulatory framework originally intended for local exchange carriers. As of June 2004, BSPs served approximately 1.4 million subscribers, representing 1.5 percent of all MVPD households.

- *Broadcast Television*: Broadcast television stations supply video programming directly to those television households that are not MVPD subscribers and to television sets in MVPD households that are not connected to such service. The broadcast industry continues to grow in the number of operating stations (from 1,726 in June 2003 to 1,747 in June 2004), adding about 1.2 percent stations over the past year. Broadcast stations and networks, and nonbroadcast networks alike must either produce programming or purchase programming from third-party producers. Broadcast stations and networks, like MVPDs and nonbroadcast networks, derive revenue from advertising. Advertising revenues increased approximately 0.7 percent between June 2003 and June 2004. Audience levels continue to decline, as they have for many years. During the 2002-2003 television season, broadcast television stations collectively (network affiliates, independent stations and public broadcast stations) accounted for an average 49 share of prime time viewing for all television households, compared to an average 48 share during the 2003-2004 television season.

Audience Share Statistics



Sources: ¶ 75 *infra* ; *2003 Report*, ¶ 94

- During the 2002-2003 television season, broadcast television stations collectively accounted for an average 45 share of all day viewing for all television households, compared to an average 44 share during 2003-2004 television season. Broadcast television stations continue to deploy digital television (DTV) service. As of September 2004, all of the 40 stations that make up the top-four network affiliates in the top ten television markets were offering digital broadcasts and 1,468 television stations, representing 85 percent of all stations, are on the air with DTV operation

- *Wireless Cable Systems*: Wireless cable operators continue to provide competition to the cable industry in a few limited areas, with their subscribership remaining relatively constant. For both June 2003 and June 2004, we report approximately 200,000 subscribers to wireless cable systems. Wireless cable subscribers now represent approximately 0.22 percent of the all MVPD households, the same share as reported in the *2003 Report*. Wireless cable operators continue to convert their use of the spectrum from video service to Internet service exclusively.

- *Private Cable Operators*: Private cable operators, also known as SMATV operators, use some of the same technology as cable systems, but do not use public rights-of-way. PCOs focus principally on serving small numbers of subscribers living in multiple dwelling units (MDUs) and other private communities. As of June 2003, there were about 1.2 million subscribers to PCO services, representing 1.34 percent of all MVPD subscribers. As of June 2004, there were about 1.1 million subscribers to PCO services, representing 1.19 percent of the total number of MVPD households, a decline since our last *Report*.

- *Internet Video*: Over the past year, video provided over the Internet has grown and promises to become an increasingly strong product in the market for the delivery of video programming. Most instances of video streamed over the web, however, are still not of broadcast quality, and the medium is still not seen as a direct competitor to traditional video services. Streaming video is currently most viable when delivered over broadband networks. As of June 2004, an estimated 64 million Americans subscribed to an Internet access service, and 30.1 million of those subscribed to a high-speed Internet access service, or about 47 percent of all subscribers. Most near term uses of video available over the web will be downloadable video. Traditionally, downloadable video has been stored and viewed over the personal computer; however, video also is becoming available for download directly to a set-top box to be viewed over the television, similar to MVPD video-on-demand services. Despite its relative low quality, streaming video remains popular, and many firms continue to develop a great deal of content.

- *Home Video Sales and Rentals*: We consider the sale and rental of home video, including videocassettes, DVDs, and laser discs, part of the video marketplace because they provide services similar to the premium and pay-per-view offerings of MVPDs. In 2004, VCR penetration is estimated to be about 91 percent of TV households. As of July 2004, approximately 70 percent of TV households have a DVD player. Digital video recorders (DVRs) are the newest technology for recording live video programming. DVRs are capable of pausing, recording, and rewinding live television in digital form on an internal hard drive instead of videotape. DVRs may be standalone devices, where the consumer obtains a subscription from a DVR service operator. In addition, cable and satellite operators have incorporated DVR functionality into their set-top boxes. TiVo, the largest DVR maker, has approximately two million subscribers, of which 1.1 million are DIRECTV subscribers. There are 1.4 million cable subscribers that have set-top boxes with DVR functionally, and EchoStar has over one million subscribers to its DVR system.

- *LEC Entry*: In past *Reports*, we have reported that the largest incumbent LECs have largely exited the video business. While this remains true today, some large incumbent LECs (ILECs) (*e.g.*, SBC and Verizon) have announced plans to provide video service over fiber-to-the-home networks they plan to deploy over the next several years. BellSouth maintains its facilities-based overbuild cable systems in 20 franchise areas, passing 1.4 million homes. In addition, Verizon has received franchises for two communities thus far, and has announced plans to roll out video services in additional areas in 2005. Several ILECs are also offering or are preparing to offer, MVPD service over existing telephone lines. Qwest Communications, for example, offers video service, high-speed Internet access, and telephone service in several markets using existing copper telephone lines and very high-speed digital subscriber line (VDSL) technology.

- *Electric and Gas Utilities*: Some utilities are engaged in the provision of video services through overbuilding incumbent cable systems. Though their services are still not widespread, utilities provide competition in scattered localities. Attributes such as their ownership of fiber optic networks and access to public rights-of-way are competitive strengths. Some utilities offer telecommunications services on their own, while others partner with broadband service providers. Municipal utilities in rural areas are also notable entrants. Reports indicate that 109 public power entities offer video services.

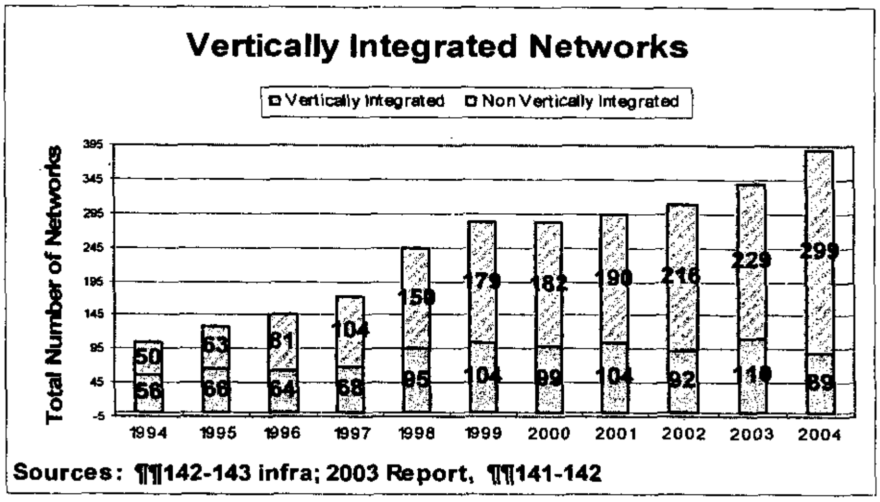
15. We also find that:

- Cable operators' acquisitions and system trades have slowed significantly since our *2003 Report*. In June 2003, the four largest operators served about 59 percent of all U.S. cable subscribers, whereas in June 2004, the four largest cable operators served about 58 percent of all U.S. cable subscribers. In terms of one traditional economic measure, national concentration among the top MVPDs has declined slightly since last year.[13] As of year-end 2003, slightly more than 53.6 million of the nation's cable subscribers were served by systems that are included in 108 regional clusters.

- The number of programming networks has increased over the last year. As of June 2003, there were approximately 339 nonbroadcast programming networks available for carriage by MVPDs. As of June 2004, there were 388 national nonbroadcast programming networks. Of these networks, cable operators had ownership interests in 89, compared to 110 networks reported in June 2003. Thus, during this period, vertical integration of national programming services between cable operators and programmers has decreased from 33 percent as of

[13] Traditional economic measures (*e.g.*, the Herfindahl-Hirschman Index or HHI) are based on market shares or the squaring of market shares such that large companies are weighed more heavily than small companies. The HHI (and apparent levels of concentration) decline with rising equality among any given number of companies in terms of market shares even if these firms individually have larger shares of the markets. *See* fn.651 *infra.*

June 2003 to 23 percent as of June 2004. As of June 2004, four of the top six cable MSOs, ranked by subscribership, held ownership interests in programming services, the same as a year earlier. In addition, we identified 103 national, nonbroadcast networks that are not owned wholly or in part by a cable operator, but are owned by one or more media entities, such as a broadcast television network or broadcast station licensee. Thus, we have identified 196 national nonbroadcast networks, representing approximately 51 percent of the 388 networks, that are not affiliated with either cable or other media entities.



- In addition, of the 15 new programming networks that were launched in 2004, two are affiliated with cable operators. In 2003, 39 new networks were launched; four of these networks are affiliated with cable operators, and a fifth is affiliated with News Corp. (Fox).[14]

- Sports programming warrants special attention because of its widespread appeal and strategic significance for MVPDs. The *2004 Report* identifies at least 38 sports channels out of a total of 96 regional networks. Many of these networks are owned at least in part by MSOs. There are also 40 regional and local news networks that compete with local broadcast stations and national cable news networks. Many of these networks are owned at least in part by MSOs.

- There were no transactions or other merger activities involving DBS operators in 2004, following the December 2003 acquisition of a controlling interest in DIRECTV by News Corp., which resulted in DIRECTV's affiliation with a broadcast television network and other media-related businesses.

- In 2003, the Commission adopted rules to permit television sets to be built with "plug-and-play" functionality for one-way digital cable services, without the need for a set-top box. The cable, DBS, and consumer electronics industries continue to work on the development of an agreement for two-way "plug-and-play" receivers. In addition, the Commission also adopted rules in 2003 to assure that DTV broadcast content will not be indiscriminately redistributed over the Internet. In 2004, the Commission approved 13 technologies meeting the Commission's standard.

[14] *See* Appendix C, Tables C-1-C-3.

- In June 2004, there were approximately 18.5 million cable modem subscribers in the U.S. As of September 2004, 427 DOCSIS modems have received certification. Most operators continue to improve their high-speed Internet access service, offering higher speeds and special features.

- We report on some interesting developments in foreign markets, covering video over Internet Protocol (IP) broadband, the digital television transition, and terrestrial, cable, and satellite competition that we find relevant to our examination of video programming in the United States. In particular, we have chosen to examine video provided via IP broadband (also known as IPTV) in Hong Kong, Italy, and the United Kingdom. We also report on the transition to digital television in Germany and the United Kingdom, in order to provide insight into the relative efficiency of market structures and regulations within the United States.

II. COMPETITORS IN THE MARKET FOR THE DELIVERY OF VIDEO PROGRAMMING

A. Cable Television Service

16. This section addresses the performance of franchised cable system operators during the past year.[15] First, we report on the general performance of the industry, including subscriber levels, availability of basic services, viewership, and cable rates. Second, we discuss the cable industry's financial performance, including its revenue, cash flow status, stock valuations, and system transactions. Third, we examine the cable industry's acquisition and disposition of capital. Lastly, we address the growth of advanced video services including digital video, video-on-demand, digital video recorders, and high-definition television; and nonvideo advanced services including high-speed Internet access and voice over Internet protocol telephony.

1. General Performance

17. During 2003, there was a decline in basic cable service[16] subscribers and premium cable service[17] subscribers. Basic cable penetration, the ratio of the number of basic cable subscribers to the number of homes passed,[18] declined in 2003 and is estimated to have declined further in the first half of 2004. By many other measures, however, general cable industry performance increased across the board.

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[15] A franchise is an authorization supplied by a federal, state, or local government entity to own or construct a cable system in a specific area. 47 U.S.C. §§ 522(9), 522(10). A cable system operator is "any person or group of persons (A) who provides cable service over a cable system, and directly or through one or more affiliates owns a significant interest in such cable system; or (B) who otherwise controls or is responsible for, through any arrangement, the management and operation of such a cable system." 47 U.S.C. § 522(5).

[16] Basic cable service, also referred to as the basic service tier (BST), is the level of cable television service that must be taken by all cable television subscribers. The content of basic cable service varies among cable systems but, pursuant to the Communications Act, must include all local television signals and public, educational, and governmental access channels and, at the discretion of the cable operator, may include other video programming services. Expanded basic cable service, also referred to as the cable programming service tier (CPST) for purposes of rate regulation, offers additional video channels on one or more program service tiers. 47 U.S.C. § 543(b)(7); 47 U.S.C. § 543 (k)(2).

[17] Premium services are nonbroadcast networks provided by a cable operator on a per-channel basis for an extra monthly fee. Pay-per-view (PPV) services are nonbroadcast networks provided on a per program basis. PPV service is a separate category from premium service.

[18] Homes passed is the total number of households capable of receiving cable television service.

For example, basic cable viewership[19] increased, as did premium service subscriptions[20] and subscriptions to digital video programming.[21] Although basic cable penetration decreased in 2003, homes passed increased during the same period. Channel capacity[22] also increased during 2003 and the first half of 2004, as did deployment of video-on-demand,[23] digital video recorders,[24] and high-definition programming.[25] Deployment of nonvideo advanced services, such as high-speed Internet access service and telephone service also increased during this period.

18. ***Cable's Capacity to Serve Television Households***. A widely used industry measurement of cable availability is the percentage of homes with a television that are passed by a cable system. The calculation of cable availability has been a subject of controversy.[26] The number of homes passed depends on the data source used, and the percentage of homes passed varies based on the universe used for the comparison.[27] NCTA estimates that at the end of 2003, 102.9 million homes with a television were passed by a cable system and there were 108.4 million homes with a television.[28] Thus, NCTA estimates that at the end of 2003, 95 percent of homes with a television were passed by a cable system.[29] NRTC contends that NCTA estimates are flawed and overstate cable availability.[30] NRTC maintains that the numerator for the NCTA's 95 percent estimate includes all occupied households (not just TV households), while the denominator is limited to just TV households.[31] Our analysis of NCTA's numbers

[19] Basic cable viewership is the combined audience share of all nonbroadcast networks on the BST and CPST tiers.

[20] Premium service subscriptions are the number of premium services to which homes are subscribing (also known as pay units).

[21] Digital video programming refers to digitally-compressed video channels offered on digital service tiers. Subscribers to digital video programming must also subscribe to basic cable service.

[22] Channel capacity is bandwidth dedicated to video use. Video channel capacity can be increased or decreased on any given system simply by using more or less bandwidth for other services, such as high-speed Internet access services or cable telephony.

[23] Video-on-demand (VOD) allows subscribers to select at any time movies and other programming they wish to view from a selection of titles stored on a remote server.

[24] Digital video recorders (DVRs) use a hard disk drive to record video programs.

[25] High-definition (HD) programming is a television signal with greater detail and fidelity than provided by the National Television Systems Committee (NTSC) system. The high-definition picture has approximately twice the visual resolution as NTSC. High-definition programming also provides CD-quality audio.

[26] *See Application of EchoStar Communications Corporation, General Motors Corporation, and Hughes Electronics Corporation, Transferors and EchoStar Communications Corporation, Transferee*, 17 FCC Rcd 20559, 20611-12 ¶¶ 122-25 (2002) (*EchoStar-Hughes HDO*) (designating for hearing the issue of the precise number of households that are not served by a cable operator, the number served by a low-capacity cable system, and the number served by a high-capacity cable system).

[27] Homes passed data evaluated in the context of our review of the EchoStar-DIRECTV merger application indicated that the number of homes not passed by cable may vary from four percent to 21.28 percent depending on the estimation methods. *EchoStar-Hughes HDO*, 17 FCC Rcd at 20612 ¶ 124 and n.356.

[28] NCTA, Cable Developments 2004, at 7; and Kagan World Media, Broadband Cable Financial Databook, Aug. 2004 (Cable Databook) at 11.

[29] NCTA, Cable Developments 2004, at 7. NCTA calculated the 95 percent figure as follows: 102.9 million/108.4 million = 0.949.

[30] NRTC Comments at 6.

[31] *Id.*

shows that NCTA actually used TV households in both the numerator and denominator.[32] NRTC also argues that housing units, not TV households, should be used to determine the universe of homes passed by cable.[33] NRTC contends that the Census Bureau's total household estimates are more accurate than the TV household estimates produced by Nielsen Media Research and used by NCTA.[34] NRTC alleges that NCTA's count of TV households must overstate the actual number of TV households because the count is larger than the Census Bureau's estimate of total households in 33 states.[35] NRTC maintains that a "full and fair accounting" will show that 22.4 million households lack access to cable services.[36]

19. For purposes of this *Report*, we continue to use, as we have in the past, data derived from Kagan World Media (homes passed by cable systems) and Nielsen Media Research (total TV households) for historical consistency. We present these data to indicate trends, rather than an absolute measure of cable availability. Kagan estimates that at the end of 2003, there were 108.4 million TV households, and 106.0 million occupied homes passed by cable systems (not all of them with a television).[37] Thus, at the end of 2003, the percentage of occupied homes with a television that were passed by a cable system must be less than 97.8 percent.[38] As noted above, NCTA estimates that at the end of 2003, 95 percent of occupied homes with a television were passed by a cable system.

20. Section 612(g) of the Communications Act provides that at such time as cable systems with 36 or more activated channels are available to 70 percent of households within the United States and are subscribed to by 70 percent of those households, the Commission may promulgate any additional rules necessary to promote diversity of information sources.[39] Current Census Bureau data indicate that there are 105,842,000 occupied housing units.[40] According to Warren Communications News (Warren), there are 84,415,707 occupied homes passed by cable systems with 36 or more channels and 58,177,885 of those households subscribe to cable systems with 36 or more channels.[41] Thus, based on this data source,

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[32] NRTC's conclusion is based on data from NCTA's website which reports that the 95 percent figure is occupied homes passed as a percentage of TV households, but NCTA's Cable Developments 2004 publication reports that the 95 percentage figure is occupied TV homes passed as a percentage of TV households. *See* http://www.ncta.com/Docs/PageContent.cfm?pageID=86 (visited Nov. 16, 2004).

[33] NRTC Comments at 6.

[34] *Id.*

[35] *Id.* at 6 and Exhibit 1.

[36] *Id* at 5.

[37] Cable Databook at 11. Occupied homes passed by cable systems equals total cable homes passed times percent of total housing units that are occupied (106.0 million = 117.9 million x 109.9 million/122.2 million). Cable Databook at 11 and 13.

[38] We calculate the 97.8 percent figure as follows: 106.0 million/108.4 million = 0.978. Since the numerator includes homes that may not have a television, the calculation overstates cable availability.

[39] 47 U.S.C. § 532(g).

[40] U.S. Census Bureau, The 2003 American Housing Survey (revised Aug. 16, 2004), Table 2-1. *See* http://www.census.gov/hhes/www/housing/ahs/03dtchrt/tab2-1.html (visited Oct. 19, 2004). Last year, according to Warren Communications News, there were 82,506,311 homes passed by cable systems with 36 or more channels and 56,859,607 of those homes subscribed to cable. We compared those figures with the Census Bureau's data that indicated that there were 119,300,000 households in the United States. We have now clarified that the Warren data are based on the number of occupied households and, thus, the appropriate Census Bureau figure is occupied households, not total households.

[41] Warren Communications News, *Custom Report: From Television and Cable Factbook Online Datasets*, Oct. 19, 2004. Warren defines homes passed as the total number of homes passed by cable systems having the potential of being served promptly. Specifically, the homes passed have to be occupied and are assumed to have a television.

cable systems with 36 or more channels are available to 79.8 percent (84,415,707/105,842,000) of occupied households. Of the occupied homes passed by cable systems with 36 or more channels, 68.9 percent (58,177,885/84,415,707) subscribe to these systems.[42] Warren reports that there are 66,241,805 cable subscribers. Thus we conclude that there are 8,063,920 current subscribers to cable systems with fewer than 36 channels. Although they do not represent the universe of cable systems, the sample data from the 2004 Price Survey and the Annual Report of Cable Television Systems (Form 325) can be used to estimate the second prong of the 70/70 benchmark; neither of which indicate that the second element of the test has been met. From the Price Survey sample, we estimate that the subscribers to systems with 36 or more channels as a percent of the homes passed by such systems is 58.8 percent. Based on the Form 325 sample, we estimate that this figure is 54.7 percent.

21. ***Subscribership***. The number of basic cable subscribers changed little from 66.1 million in 2002 to 66.0 million in 2003, as shown in Table 1 below. The number of basic cable subscribers is projected to change little in 2004. Kagan projects 66.2 million basic subscribers at year-end 2004.[43]

TABLE 1: Cable Television Industry Growth: 1998 - June 2004 (in millions)[44]

	TV Households (TH)[45]		Homes Passed (HP)[46]		Basic Subscribers (Subs)[47]				
Year	Total	% Change Over Prior Yr	Total	% Change Over Prior Yr	Total	% Change Over Prior Yr	HH Passed by Cable (HP/TH)	HHs Subscribing (Subs/TH)	U.S. Penetration (Subs/HP)
1998	99.4	1.4%	95.6	1.7%	65.1	1.4%	96.2%	65.5%	68.1%
1999	100.8	1.4%	97.6	2.1%	65.9	1.2%	96.8%	65.4%	67.5%
2000	102.2	1.4%	98.9	1.3%	66.6	1.1%	96.8%	65.2%	67.3%
2001	105.4	3.1%	100.6	1.7%	66.9	0.5%	95.4%	63.5%	66.5%
2002	106.7	1.2%	103.4	2.8%	66.1	-1.2%	96.9%	61.9%	63.9%
2003	108.4	1.6%	106.0	2.5%	66.0	-0.2%	97.8%	60.9%	62.3%
June 2004	108.4	0.0%[48]	107.1	1.0%	66.1	0.2%	98.8%	61.0%	61.7%

[42] *See also* Letter from Daniel L. Brenner, Senior Vice President, Law & Regulatory Policy, NCTA, to Marlene H. Dortch, Secretary, FCC, Dec. 17, 2004 (providing estimates using Warren, Nielsen, and Kagan homes passed and subscriber statistics).

[43] Cable Databook at 11.

[44] Historical data in this table may differ from those previously reported because some data have been updated by Kagan. *See* Cable Databook at 8, 11.

[45] The 2003 and estimated June 2004 TV Household numbers are reported by Kagan World Media as total U.S. TV households. The numbers are derived from Nielsen Media Research and Kagan estimates. *Id.* at 11.

[46] The 1998 through 2003 homes passed numbers are reported by Kagan as residential cable homes passed. The June 2004 homes passed estimate is an average calculated from the actual 2003 and the projected 2004 numbers for occupied cable homes passed. *Id.* at 9, 11.

[47] The 1998 through 2003 basic subscriber numbers are reported by Kagan as basic subscribers. The June 2004 basic subscriber estimate is an average calculated from the actual 2003 and the projected 2004 numbers for total basic cable subscribers. *Id.* According to NCTA, there were 71.1 million cable subscribers at the end of April 2004. NCTA Comments at 7. NCTA's estimate of cable subscribers is more than the number of basic subscribers reported in Table 1 above.

[48] Percentage change columns in this row are from December 2003 to June 2004.

Basic subscriber losses for the second quarter of 2004 were larger than expected and some companies have revised their projections for 2004 from slight increases to no growth in the number of basic subscribers.[49] For example, Comcast added 140,000 basic cable subscribers in 2003.[50] These gains were followed by losses in the first six months of 2004.[51] By year-end 2004, Comcast expects net additions of less than 0.5 percent to the number of basic cable subscribers.[52] For 2003, Cox added 57,000 basic cable subscribers (a 0.9 percent increase).[53] These gains were followed by a loss of 75,000 basic cable subscribers in the first six months of 2004.[54] For the year 2004, Cox expects basic cable subscriber growth to be just under one percent.[55] For 2003, Time Warner reported a 0.1 percent increase in the number of basic cable subscribers.[56] Time Warner, however, reported a loss of 21,000 basic cable subscribers in the second quarter of 2004.[57] Cablevision lost 19,600 basic cable subscribers in 2003 but added 7,800 in the first six months of 2004.[58] By year-end 2004, Cablevision expects an increase of approximately 0.5 percent in the number of basic video subscribers.[59] Charter lost 147,500 basic cable subscribers in 2003.[60] Charter lost another 67,300 basic cable subscribers in the first six months of 2004.[61]

22. Cable penetration (*i.e.*, subscribers/ homes passed) declined in 2003, as the number of subscribers decreased, and the number of homes passed increased. Cable penetration is estimated to decline further in the first half of 2004. The ratio of cable subscribers to television households also declined in 2003, as the number of subscribers decreased, and the number of television households increased.[62]

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[49] *See* Kagan World Media, Cable TV Investor: Deals & Finance, Aug. 18, 2004, at 1-2.

[50] Comcast Corp., *Comcast Full Year and Fourth Quarter Results Meet or Exceed All Operating and Financial Targets Setting Stage for Continued Growth in 2004* (press release), Feb. 11, 2004.

[51] Comcast Corp., *Comcast Reports Second Quarter 2004 Results* (press release), July 28, 2004.

[52] *Id.*

[53] Cox Communications Inc., *Cox Communications Announces Fourth Quarter and Full-Year Financial Results for 2003* (press release), Feb. 2, 2004.

[54] Cox Communications Inc., *Cox Communications Announces Second Quarter and Year-to-Date Financial Results for 2004* (press release), July 29, 2004.

[55] *Id.*

[56] Time Warner Inc., *Time Warner Reports Results for 2003 Full Year and Fourth Quarter* (press release), Jan. 28, 2004.

[57] Time Warner Inc., *Time Warner Inc. Reports Second Quarter 2004 Results* (press release), July 28, 2004.

[58] Cablevision Systems Corp., *Cablevision Systems Corporation Reports Fourth Quarter and Full Year 2003 Results* (press release), Mar. 2, 2004; Cablevision Systems Corp., *Cablevision Systems Corporation Reports Second Quarter 2004 Results* (press release), Aug. 9, 2004.

[59] Cablevision Systems Corp., *Cablevision Systems Corporation Reports Fourth Quarter and Full Year 2003 Results* (press release), Mar. 2, 2004.

[60] Charter Communications Inc., *Charter Reports Fourth Quarter and Year 2003 Financial and Operating Results* (press release), Feb. 19, 2004. *Charter* reports that the number of analog video subscribers declined from 6.6 million at year-end 2002 to 6.4 million at year-end 2003. Analog video subscribers include all subscribers who receive video services. *Id.*

[61] Charter Communications Inc., *Charter Communications Reports Second Quarter 2004 Financial and Operating Results* (press release), Aug. 9, 2004.

[62] From the end of 2003 to the end of June 2004, the ratio of cable subscribers to TV households is calculated to increase slightly from 60.9 percent to 61.0 percent. This calculation is the result of holding the number of TV

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23. For the second year in a row, the number of homes subscribing to premium cable services declined from 35.3 million in 2002 to 34.8 million in 2003, as shown in Table 2 below. At the end of 2003, approximately 53 percent of cable's 66.0 million subscribers also subscribed to premium services.[63] The number of premium services to which homes are subscribing (also known as pay units) increased from to 80.9 million in 2002 to 83.4 million in 2003, but the size of the increase was smaller than the prior year's increase.[64] Although the cable industry sold more premium services, the total revenue received from premium services declined 1.2 percent in 2003.[65] Cable systems sold premium cable services to fewer homes, but the average number of subscriptions per premium subscriber increased slightly, from an average 2.3 subscriptions per subscriber in 2002 to an average 2.4 subscriptions per subscriber in 2003.[66]

TABLE 2: Premium Cable Services: 1998 - 2003 (in millions)[67]

Year	Premium Cable Service Subscribers (Pay HH)		Premium Cable Service Subscriptions (Pay Units)		Average Number of Subscriptions
	Total	% Change Over Prior Year	Total	% Change Over Prior Yr	Pay Units/ Pay HH
1998	32.9	3.5%	58.6	6.0%	[illegible]
1999	34.3	4.3%	60.2	2.7%	1.8
2000	35.7	4.1%	66.8	11.0%	1.9
2001	36.0	0.8%	75.6	13.2%	2.1
2002	35.3	-1.9%	81.1	7.3%	2.3
2003	34.8	-1.4%	83.4	2.8%	2.4

24. ***Channel Capacity***. Data from the Commission's *2004 Price Survey*[68] provides figures on cable system bandwidth and the number of analog and digital video channels being delivered by surveyed

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households constant at 108.4 million over the entire 2003-2004 season and assuming that the number of basic subscribers will increase from 66.0 million to 66.1 million from January 2003 to June 2004. At year-end 2004, Kagan projects 66.2 million basic subscribers. Cable Databook at 11. We assumed that half of the projected growth would occur by the end of June 2004. As such, we assumed that there would be 66.1 million basic subscribers by the end of June 2004.

[63] Cable Databook at 9.

[64] *Id.* at 9.

[65] *Id.* at 8.

[66] *Id.* at 9.

[67] Historical data included in this table may differ from those previously reported because some data have been updated by Kagan. *See* Cable Databook. The 1998 through 2003 premium cable service subscribers (Pay HH) numbers are reported by Kagan as pay subscribers. *Id.* at 9. The 1998 through 2003 premium cable service subscriptions (Pay Units) numbers are reported by Kagan as the sum of premium units and mini-pay units (defined as a service or pay TV that programs less than 8 hours per day). Premium units include HBO, Cinemax, Showtime, Movie Channel, Starz, and Playboy. Mini-pay units include Sundance, Flix, and Encore. *Id.* at 9.

[68] The *2004 Price Survey* (Survey) requested data from cable operators pertaining to monthly cable rates in communities selected as part of a random sample. We received 641 Survey responses. We requested data as of January 1, 2004, and limited amounts of data as of January 1, 2003 and January 1, 2002. In addition to monthly
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cable systems (see Table 3).[69] It shows that approximately 85.7 percent of the sampled cable systems (both competitive and noncompetitive systems)[70] have facilities with bandwidth of 750 MHz or above.[71] The average bandwidth of systems in the Survey is approximately 734 MHz. Cable system bandwidth may be allocated among video and nonvideo services. We calculate that the average system in the Survey used 513 to 588 MHz of bandwidth to provide video service.[72] Cable operators are choosing to provide, on average, approximately 73 analog video channels and 150 digital video channels, with enough additional bandwidth to provide high-definition television, video-on-demand, and Internet access services. From January 2003 to January 2004, the total number of video channels (analog plus digital) carried by the average cable system in the Survey increased from approximately 210 to 223.

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cable rates, the Survey sought information on the number of channels in order to determine how much subscribers pay on a per channel basis. The Survey also gathered information at the cable system level on other factors that may affect cable rates and competition in the multichannel video programming market, including: (1) number of cable subscribers; (2) number of digital cable service subscribers; (3) number of cable Internet access subscribers; (4) number of cable telephony subscribers; (5) cable system capacity in MHz; and (6) cable programming revenues; (7) cable programming costs; and (8) system operating costs.

[69] Section 623(k) of the Communications Act requires the Commission to publish annually a statistical report on cable prices, or more specifically, average rates for the delivery of the BST, the CPST, and equipment. *See* 47 U.S.C. § 543(k). The BST includes local television broadcast signals and public, educational, and governmental access channels. *See* 47 U.S.C. § 543(b)(7). The CPST includes any video programming other than video programming carried on the basic service tier, and video programming offered on a per-channel or per program basis. *See* 47 U.S.C. § 543(k)(2); *see also* fn. 16 *supra*. Equipment refers to a converter box, remote control, and other equipment necessary to access programming. *See* 47 U.S.C. § 543(b)(3).

[70] The Survey enables the Commission to compare prices charged by samples of two groups of cable operators: (1) operators that are deemed to face effective competition (referred to as the competitive group) and (2) operators that do not face effective competition (the noncompetitive group). Within the noncompetitive group, information was collected from both regulated and unregulated operators. Operators in the competitive group are limited to those operators that have sought and obtained a Commission finding of effective competition. As a result, within the noncompetitive group, there may be, and likely are, operators that face competition but have not filed a petition with the Commission seeking a finding of effective competition. Similarly, there may be operators within the competitive group that may have met the criteria for a finding of effective competition at the time the finding was made, but because of changed circumstances, may not meet the statutory criteria currently.

[71] According to NCTA, by year-end 2003, nearly 95 million homes were passed by systems with 750 MHz or higher capacity, and more than 95 million households were passed by systems that provided two-way services, such as cable modem service, interactive television, and IP telephony. NCTA Comments at 29. Kagan reports that by the end of 2003 there were 106 million occupied households passed by cable systems. Cable Databook at 11. Thus, NCTA's reported numbers for year-end 2003 indicate that nearly 89.6 percent (95 million/106 million = 89.6 percent) of these homes had access to cable systems with 750 MHz or higher and more than 89.6 percent (95 million/106 million = 89.6 percent) of these homes had access to activated two-way plant. NCTA's calculation for homes passed by 750 MHz cable systems is slightly higher than the 85.7 figure derived from the *2004 Price Survey* data. This is likely due to differing data and measurement methodologies.

[72] Each analog channel requires six MHz bandwidth, thus it takes approximately 438 MHz of bandwidth to deliver the 73 analog channels. Multiple digital channels, however, can be delivered on six MHz of bandwidth. Depending on the modulation, type of content, and other factors that vary from one cable operator to another and one system to another, a range of six to 12 digital channels can be delivered on each six MHz of bandwidth. The average number of digital channels in the survey is 150, so it takes from 75 to 150 MHz of bandwidth to deliver the 150 digital channels (150/12 x 6 MHz = 75 MHz to 150/6 x 6 MHz = 150 MHz). Because cable operators are delivering high-definition television (HDTV) programming, and it takes more bandwidth to deliver HDTV programming, our estimate of the bandwidth used for video programming may understate the actual bandwidth cable operators are using to provide video programming.

TABLE 3: January 2004 Channel Capacity[73]

	Competitive Group	Noncompetitive Group
Average system capacity (MHz)	734	734
Percent of systems with capacity of:		
212 to 749 MHz	14.5%	14.3%
At 750 MHz	62.4%	59.3%
751 to 870 MHz	23.1%	26.4%
Total number of channels[74]	232.4	222.6
Total number of analog channels	74.7	73.2
Total number of digital channels	157.7	149.4

25. ***Viewership.*** During the 2003-2004 television season, the combined audience share[75] of all nonbroadcast networks[76] was higher than the combined audience share of all broadcast television stations[77] for both all day viewing and prime time viewing.[78] For all day viewing, the combined audience share of all nonbroadcast networks was 56, and the combined audience share of all broadcast television stations was 44. For prime time viewing, the combined audience share of all nonbroadcast networks was 52, and the combined audience share of all broadcast television stations was 48. According to NCTA, the seven national commercial broadcast networks (ABC, CBS, NBC, FOX, UPN, WB, and PAX) accounted for a 38 share of all day viewing in 2003, and all nonbroadcast networks accounted for a 63 share of all day viewing.[79] According to NCTA, the 2003–2004 television season (September 2003–May 2004) was the first time that the combined nonbroadcast networks' share of prime time viewing was greater than the combined national broadcast networks' share of prime time viewing.[80]

26. ***Cable Rates***. The Commission's *2004 Price Survey*[81] finds that the average monthly cable rate increased by 5.6 percent for the noncompetitive cable operators surveyed (cable systems in communities without an effective competition finding) over the twelve months ending January 2004, and the average price per channel increased by 1.2 percent. The average monthly cable rate increased by 3.6 percent for the competitive cable operators surveyed (cable systems in communities where effective competition was found to be present) over the twelve months ending January 2004, and the average

[73] Derived from *2004 Price Survey* data.

[74] In previous years, we have reported the total number of channels in terms of the bandwidth (specifically, the estimated number of six MHz channels) needed to carry the analog and digital channels. *See* fns. 22, 71 *supra*.

[75] A share is the percent of all households using television during the time period that are viewing the specified station(s) or network(s). Due to simultaneous multiple set viewing, Nielsen reports audience shares that exceed 100 percent when totaled. We have normalized audience shares to equal 100 percent.

[76] Nonbroadcast network shares include basic (BST and CPST) networks, premium networks, and PPV networks distributed by MVPDs.

[77] Broadcast shares include network affiliates, independent, and public television stations.

[78] Prime time viewing is Monday through Saturday, 8 p.m.-11 p.m., and Sunday, 7 p.m.-11 p.m. Nielsen Media Research, *Broadcast Calendar (TV Season) Share of Audience Report, Prime time and Total Day*, Sept. 2004. *See also* NCTA Comments at 45–46. The most popular nonbroadcast networks continue to receive a lower audience share for all day viewing and prime time viewing than any of the major broadcast television networks. Nielsen Media Research.

[79] NCTA Comments at 45. NCTA's numbers do not include PBS and independent commercial broadcast stations.

[80] *Id.* at 46.

[81] *See* fn. 68 *supra*.

monthly price per channel decreased by 0.3 percent.[82] Thus, the competitive differential in monthly cable rates (the percentage difference between the noncompetitive group and the competitive group) was 7.3 percent over the twelve months ending January 2004, and the competitive differential in the price per channel was 11.0 percent. The degree of difference varied by competitive subgroup. The highest differentials were associated with wireline overbuild competition. For communities in this subgroup, the average monthly cable rate and price per channel were, respectively, 15.7 percent lower and 27.2 percent lower than those averages for the noncompetitive group.

27. The Bureau of Labor Statistics (BLS) publishes a Consumer Price Index (CPI) that measures price inflation related to all goods and services for all urban consumers. By this measure, inflation increased by 1.1 percent over the 12 months ending January 2004. BLS also publishes price indices for many components of the overall CPI, including a price index for a basket of cable services (cable CPI).[83] The cable CPI increased by 3.8 percent over the year ending January 2004. Because it covers a different mix of services, however, the cable CPI cannot be compared directly with the results of the Commission's Price Survey.[84]

28. ***Cable Industry Revenue***. Total revenue grew to $54.3 billion in 2003, as shown in Table 4 below. This represents an 11.5 percent increase over 2002. Cable revenue is projected to grow 10.8 percent in 2004 to $60.2 billion. Much of the increase in revenue comes from growth in demand for advanced services, especially high-speed Internet service and digital cable services, and from higher basic cable rates. Average monthly residential revenue per subscriber grew from $59.87 in 2002 to $66.22 in 2003 and is projected to increase to $72.60 in 2004.[85] All revenue categories increased, except revenue from premium tiers, which decreased 1.2 percent in 2003.

29. ***Cable Industry Cash Flow***. Cash flow (generally expressed as earnings before interest, taxes, depreciation, and amortization, or EBITDA) is often used to assess the financial position of cable firms and other companies in capital intensive industries.[86] Cash flow from operations is the net result of cash inflows from operations (revenue) and cash outflows from operations (expenses). Cash flow from operations indicates a firm's ability to meet its net finance and investment obligations and thus does not include non-cash charges to net income such as depreciation and amortization. As Table 4 shows, cash

[82] *See 2004 Price Survey* at ¶¶ 9-11. The Survey found that there is only a slight difference in the overall average and the average for the noncompetitive group because the noncompetitive group is much larger than the competitive group - an estimated eight percent of the total nationwide) *Id.*

[83] This index predominately reflects cable service, although it includes elements of satellite television and radio service. *See* http://www.bls.gov/cpi/home.htm (visited Jan. 14, 2005).

[84] For example, the Cable CPI includes all cable television services, while the monthly cable rate consists of basic service, expanded basic, and equipment. Also, because the CPI measures change in what consumers pay for a fixed basket of goods and services, BLS adjusts the cable CPI to reflect estimated changes in cable services. *See* http://www.bls.gov/cpi/home.htm (visited Jan. 14, 2005).

[85] Cable Databook at 4.

[86] The cable industry has long used a cash flow valuation model. Cash flow valuation is an effective tool for valuing companies that have negative net income because they are building out capital infrastructure and accruing significant long-term debt early in their life-cycle. The traditional measurement of cash flow, a measure of operating profit, has evolved into EBITDA, which ignores the expenses of interest, taxes, depreciation and amortization, whereas the standard valuation model, net income, includes them. In the past year, free cash flow (FCF) has largely replaced EBITDA as a critical valuation metric of choice among industry analysts. Although a standardized definition of FCF does not exist, FCF essentially takes into account the periodic interest that must be paid on debt. Some analysts more recently have suggested that the cable industry should be valued on the traditional net income model, and not cash flow or its various proxies (EBITDA or FCF) because the industry has now reached a stage of maturation that would justify use of more traditional valuation metrics. *See 2003 Report*, 19 FCC Rcd at 1627 ¶ 28 and n.72.

flow from operations increased during 2003.[87] Table 4 also shows that the average annual revenue for residential and business subscribers combined is expected to grow from $824 in 2003 to $910 in 2004.[88] In addition, cash flow as a percentage of revenue (cash flow margin) increased over the same period. That is, cash flow increased at a greater rate than revenue, indicating that revenues grew faster than operating expenses during 2003.

TABLE 4: Cable Industry Revenue and Cash Flow: 2002 – 2004[89]

	2002 Total	2003 Total	02-03 % Change	2004 Est. Total	03-04 % Change
Basic Subscribers (mil.)	66.1	66.0	-0.2%	66.2	0.3%
Revenue Segments (mil.)					
Basic Service and CPST Tiers	$27,690	$29,000	4.7%	$30,336	4.6%
Premium (Pay) Tiers	$5,963	$5,891	-1.2%	$5,871	-0.3%
VOD/Pay-Per-View[90]	$793	$976	23.1%	$1,134	16.2%
Local Advertising	$2,978	$3,239	8.8%	$3,676	13.5%
Home Shopping	$289	$307	6.2%	$330	7.5%
Total Digital Tier	$2,693	$3,396	26.1%	$4,008	18.0%
High-speed Internet	$4,525	$6,761	49.4%	$8,886	31.4%
Digital Video Recorder	$4	$36	800.0%	$149	313.9%
Circuit Switch and VoIP	$1,261	$1,524	20.9%	$1,732	13.6%
Installation[91]	$426	$443	4.0%	$458	3.4%
Miscellaneous[92]	$2,173	$2,821	29.8%	$3,669	30.1%
Total Revenue[93] (mil.)	**$48,795**	**$54,394**	**11.5%**	**$60,249**	**10.8%**
Revenue Per Subscriber	$738.20	$824.15	11.7%	$910.11	10.4%
Operating Cash Flow (mil.)	**$18,201**	**$20,371**	**11.9%**	**$22,670**	**11.3%**
Cash Flow per Subscriber	$275.36	$308.65	18.9%	$342.45	11.0%
Cash Flow/Total Revenue	**37.3%**	**37.5%**	**0.5%**	**37.6%**	**0.3%**

[87] Kagan World Media reports that it was high-margin, high-speed data service that drove operating cash flow growth in 2003. Cable Databook at 7.

[88] Revenue from residential subscribers is expected to grow from $794.64 ($66.22 per month x 12 = $794.64) in 2003 to $871.20 ($72.60 x 12 = $871.20) in 2004. Revenue from business subscribers is expected to grow from $991.32 ($82.61 x 12 = $991.32) in 2003 to $1040.88 ($86.74 x 12 = $1040.88) in 2004. *Id.* at 13.

[89] Pay-per-view and home shopping data for 2001 come from the *2002 Report*. All other data come from the Cable Databook at 8-13 and 154. Historical data included in this table may differ from those previously reported because some data have been updated by Kagan. *See* Cable Databook.

[90] Includes VOD, subscription-video-on-demand (SVOD), near-video-on-demand (NVOD), and PPV.

[91] Includes basic installation and pay installation.

[92] Miscellaneous revenue includes revenues derived from high-definition television, interactive games, home networking, business services, and equipment charges. We note that there is often no additional cost for the standard definition version of HDTV channels. In many cases, MSOs charge for HDTV channels that are not offered in a standard definition version. Some MSOs do not charge higher prices for an HD set-top box, but most apply a professional installation fee. *See* Time Warner Cable, http://www.timewarnercable.com/corporate/products/digitalcable/hdtv.html (visited Jan. 14, 2005); Cablevision Systems Corp., http://ww[illegible]v/index.jhtml?pageType=hdtv (visited Jan. 14, 2005); Comcast Corp., http://www.comcast.com/Benefit[illegible]bleDetails/Slot4PageOne.asp?LinkID=120 (visited Jan. 14, 2005); Charter Communications, http://www.charte[illegible]om/products/hdtv/hdtv.aspx (visited Jan. 14, 2005).

[93] Total revenue includes both residential and business revenue. Business revenue was $1,036 million for 2002, $1,911 million for 2003, and a projected $2,647 million for 2004.

30. ***Programming Costs***. Cable operators' combined program expenditures reached $11.46 billion in 2003.[94] This represents expenditures for existing nonbroadcast networks and expenditures for new nonbroadcast networks.[95] In addition to expenditures for national nonbroadcast networks, cable companies produced or acquired local and regional programming, including cable news and public affairs networks.[96] Included in the $11.46 billion in program expenditures are copyright fees of $129.2 million in 2003 for broadcast signal carriage pursuant to Section 111 of the Copyright Act.[97]

31. ***Cable System Transactions***. The aggregate value of cable systems sold in any year depends on the number of transactions, the size of the cable systems involved, and the price paid. As shown in Table 5 below, there were 34 cable transactions in 2003, representing an aggregate value of $1.52 billion.[98] A few transactions accounted for most of the dollar value.[99] Most of the transactions, however, involved small rural cable systems and non-upgraded cable systems.[100] For the smallest transaction, the price was $1,259 per subscriber.[101] For the largest transaction, the price was $3,225 per subscriber.[102] The average value per subscriber in 2003 was $2,321.[103] In the first six months of 2004, there were nine cable system transactions, representing an aggregate value of $293 million. According to Kagan, this is the smallest number of transactions since it started tracking cable transactions in 1982.[104] Mergers, which involve the transfer and exchange of numerous systems, are not reflected in Table 5.

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[94] NCTA Comments at 44. NCTA's calculation of programming expenditures includes license fees, copyright fees, and investments in local programming.

[95] In 2004, we have identified 388 nonbroadcast networks. *See* para. 145 *infra*. According to NCTA, there were 339 nonbroadcast networks by year-end 2003, including new networks such as NFL Network, Pentagon Channel, Si TV, and TVOne. NCTA Comments at 45.

[96] *Id*. at 46-47.

[97] Copyright Act, 17 U.S.C. § 111 *et seq*. Copyright Office, Library of Congress, *Licensing Division Report of Receipts*, Oct. 28, 2004. Copyright fees are due on a specific date, but are collected on a rolling basis.

[98] Cable Databook at 175.

[99] The two largest transactions, Comcast's acquisition of 30,000 cable subscribers from U.S. Coastal Cable in April 2004 and Cebridge's acquisition of 41,000 cable subscribers from USA Media Group in March 2004, accounted for approximately 63 percent of the aggregate value of cable systems sold. Kagan World Media, Cable TV Investor: Deals & Finance, July 29, 2004, at 18. *See also* Kagan World Media, Cable TV Investor: Deals and Finance, Mar. 31, 2004, at 12; Kagan World Media, Cable TV Investor: Deals & Finance, May 28, 2004, at 13.

[100] Cable Databook at 175. *See also* Kagan World Media, Cable TV Investor: Deals & Finance, Feb. 29, 2004, at 6-7.

[101] Cable Databook at 175.

[102] *Id.*

[103] *Id.* Analysis of transactions over the past five years shows that smaller systems sold for an average of $1,731 per subscriber and larger systems sold for an average of $4,466 per subscriber. *Id.*

[104] Kagan World Media, Cable TV Investor: Deals & Finance, July 29, 2004, at 18.

TABLE 5: System Transactions: 2001 - June 2004[105]

	2001	2002	2003	Jan-Jun 2004
Number of Systems Sold	36	23	34	9
Total Number of Subscribers Sold	17,958,375	607,446	654,759	130,391
Average Number of Subscribers	498,844	26,411	19,258	14,488
Total Number of Homes Passed Sold	31,657,221	1,158,765	1,132,772	233,147
Average Number of Homes Passed per System Sold	879,367	50,381	33,317	25,905
Total Dollar Value (mil.)	$87,499	$1,432	$1,520	$293
Average Value (mil.) of System Sold	$2,431	$62.3	$44.7	$43.7
National Average Dollar Value Per Subscriber	$4,872	$2,357	$2,321	$2,249
Dollar Value Per Home Passed	$2,764	$1,236	$1,341	$1,258
Cash Flow Multiple	19.3	11.6	9.4	10.5

32. ***Stock Prices***. Cable stock prices, as measured by the Kagan Cable MSO Average,[106] fell 8.2 percent from June 2003 to June 2004, whereas the S&P 500 rose 16.4 percent, and the NASDAQ rose 25.2 percent.[107] At the end of June 2004, cable stocks were trading at a historic low of 8.5 times cash flow.[108] One analyst reported that cable stocks had fallen because of investor worries regarding competition from DBS and reports of facilities-based entry of telephone companies into the video delivery market.[109]

2. Capital Acquisition and Disposition

33. ***Industry Financing***. Table 6 shows the amount of financing raised per year by source. Cable companies reduced total debt in 2003. Kagan reports that 2003 was the first time net public debt was negative since it began keeping records in 1988.[110] Cable companies continued to reduce net public debt in the first half of 2004.

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[105] Data for 2003 come from Kagan World Media, Cable TV Investor: Deals & Finance Jan. 31, 2004, at 11. Data for January to June 2004 come from Kagan World Media, Cable TV Investor: Deals & Finance, July 29, 2004, at 19. The numbers for January to June 2004 include all announced and proposed deals. Historical data included in this table may differ from those previously reported because some data have been updated by Kagan. *See* Cable Databook.

[106] The Kagan MSO Average includes the following companies (stock symbol): Gannett (GNCMA), Washington Post (WPO), Comcast A (CMCSA), Comcast Special (CMCSK), Cox (COX), Cablevision (CVC), Time Warner (TWX), Insight Communications (ICCI), Mediacom (MCCC), Charter Communications (CHTR), RCN Corporation (RCN), and Adelphia (ADELQ).

[107] Kagan World Media, Cable TV Investor: Deals & Finance, July 30, 2003, at 23; Kagan World Media, Cable TV Investor: Deals & Finance, July 29, 2004, at 23.

[108] Kagan World Media, Cable TV Investor: Deals & Finance, July 29, 2004, at 1.

[109] Kagan World Media, Cable TV Investor: Deals & Finance, July 29, 2004, at 3. *See also* Peter Grant, *Coming to Cable: Payback Time*, WALL STREET JOURNAL, July 27, 2004.

[110] Cable Databook at 153.

TABLE 6: Acquisition of Capital: 1998 - June 2004 ($ in millions)[111]

	Private Debt		Net New Public Debt		Private Equity (Pvt. Placement/VC)		Public Equity (Common/Preferred)		
Year	Amount Raised	% of Total Raised in Year	Amount Raised	% of Total Raised in Year	Amount Raised	% of Total Raised in Year	Amount Raised	% of Total Raised In Year	Total Capital Raised In Year
1998	$5,421	39.1%	$6,299	45.5%	$250	1.8%	$1,927	13.9%	$13,897
1999	$34,358	51.9%	$18,610	28.1%	$5,385	8.1%	$7,799	11.8%	$66,152
2000	$7,255	60.3%	$4,288	35.7%	$101	0.8%	$380	3.2%	$12,024
2001	$6,668	31.4%	$10,678	50.2%	$623	2.9%	$3,282	15.4%	$21,250
2002	$2,545	25.2%	$3,942	39.0%	$15	0.1%	$3,608	35.7%	$10,110
2003	$1,791	-641.9%	-$2,240	802.9%	$116	-41.6%	$54	-19.4%	-$279
Jan-June 2004	$6,165	173.3%	-$2,733	-76.8%	$125	3.5%	$0	0%	$3,557

34. *Capital Expenditures/Capital Investment.* Over the last decade, cable companies have invested heavily to rebuild and upgrade cable systems.[112] These investments enable cable operators to offer more channels of basic and digital cable services, premium movie services, pay-per-view programs, high-definition programming, high-speed Internet access services, CD-quality music, cable telephony, and more personalized programming options.[113] NCTA estimated that the rebuilding and upgrading of cable systems to 750 MHZ or greater capacity with two-way capability would be 91 percent complete by July 2004.[114] At year-end 2003, nearly 95 million homes were passed by cable systems with capacity of 750 MHz or higher and two-way capability.[115] With the rebuilding and upgrading of cable systems nearing completion, capital expenditures for most cable operators are being reduced. Capital expenditures were $10.3 billion in 2003 and are estimated to fall to $9.5 billion in 2004.[116]

35. Comcast reported capital expenditures of $4.1 billion in 2003, with approximately $1.4 billion for upgrading cable systems and approximately $1.6 billion for upgrading customer premise equipment.[117] Comcast expects capital expenditures to reach $3.3 billion to $3.4 billion in 2004, an approximate $750 million decline from 2003.[118] For the first six months of 2004, Comcast reported $1.7

[111] Data for 2003 come from Cable Databook at 158. Data for January to June 2004 come from Kagan World Media, Cable TV Investor: Deals & Finance, July 29, 2004, at 15. Historical data included in this table may differ from those previously reported because some data have been updated by Kagan. *See* Cable Databook.

[112] Rebuilds are significant improvements made to existing systems that do not retain much of the old system plant and equipment. Upgrades are improvements to existing cable systems that do not require the replacement of the entire existing plant and equipment.

[113] NCTA Comments at 30.

[114] *Id.* at 29.

[115] *Id.* at 29.

[116] *Id.* at 29, and Cable Databook at 4.

[117] Comcast Comments at 23.

[118] Comcast Corp., *Comcast Full Year and Fourth Quarter Results Meet or Exceed All Operating and Financial Targets Setting Stage for Continued Growth in 2004* (press release), Feb. 11, 2004. Comcast has been upgrading the AT&T Broadband systems acquired in 2002. Prior to the acquisition of AT&T Broadband in 2002, over 95 percent of Comcast's systems were upgraded to 750 MHz or greater. When Comcast acquired the AT&T Broadband systems, only 66 percent of those systems were upgraded. At year-end 2003, 93 percent of the acquired systems were upgraded. *Id. See also 2003 Report*, 19 FCC Rcd at 1634 ¶ 38.

billion in capital expenditures.[119] Comcast expects to complete the upgrade of its cable systems in 2004.[120] By year-end 2003, 95 percent of Comcast's cable systems were upgraded to deliver two-way digital cable and high-speed Internet services.[121] At the end of the first quarter of 2004, Comcast had upgraded 96 percent of its cable plant.[122] At the end of June 2004, 97 percent of Comcast cable systems were upgraded to provide advanced services.[123] Cox reported capital expenditures of $1.6 billion in 2003, with $206.4 million for upgrading and rebuilding cable systems and $606.3 million for customer premise equipment.[124] Cox expects a slight decline in expenditures to $1.4 billion in 2004.[125] For the first six months of 2004, Cox reported capital expenditures of $617.9 million.[126] Time Warner reported cable capital expenditures of $1.6 billion in 2003, with $175 million for upgrading and rebuilding cable systems and $715 million for customer premise equipment.[127] For the six months ended June 30, 2004, Time Warner reported $718 million in cable capital expenditures.[128] Last year, Time Warner announced that it had upgraded virtually all of its cable architecture with hybrid fiber-coax cable plant capable of supporting two-way, digital communications.[129] Cablevision reported cable capital expenditures of $715.2 million in 2003, with $139.1 million for upgrading and rebuilding cable systems and $448.5 million for customer premise equipment.[130] During 2003, Cablevision completed a system-wide upgrade of its nonbroadcast network.[131] For the first six months of 2004, Cablevision reported cable capital expenditures of $278.0 million.[132] Charter reported cable capital expenditures of $854 million in 2003, with $132 million for upgrading and rebuilding cable systems and $380 million for customer premise equipment.[133] For the six months ended June 30, 2004, Charter reported $390 million in cable capital expenditures.[134] This is a 48 percent increase from the first half of 2003, when cable capital expenditures

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[119] Comcast Corp., *Comcast Reports Second Quarter 2004 Results* (press release), July 28, 2004. In the second quarter of 2004, Comcast spent $893 million in capital improvements compared with $1.0 billion in the second of the prior year. *Id.*

[120] Comcast Corp., *Comcast Provides Financial Outlook for 2004* (press release), Feb. 11, 2004.

[121] Comcast Corp., *Comcast Full Year and Fourth Quarter Results Meet or Exceed All Operating and Financial Targets Setting Stage for Continued Growth in 2004* (press release), Feb. 11, 2004.

[122] Comcast Comments at 24.

[123] Comcast Corp., *Comcast Reports Second Quarter 2004 Results* (press release), July 28, 2004.

[124] Cox Communications Inc., *Cox Communications Announces Fourth Quarter and Full-Year Financial Results for 2003* (press release), Feb. 2, 2004.

[125] *Id.*

[126] Cox Communications Inc., *Cox Communications Announces Second Quarter and Year-to-Date Financial Results for 2004* (press release), July 29, 2004.

[127] Time Warner Inc., *Time Warner Reports Results for 2003 Full Year and Fourth Quarter* (press release), Jan. 28, 2004.

[128] Time Warner Inc., *Time Warner Inc. Reports Second Quarter 2004 Results* (press release), July 28, 2004.

[129] *2003 Report*, 19 FCC Rcd at 1635 ¶ 38.

[130] Cablevision Systems Corp., *Cablevision Systems Corporation Reports Fourth Quarter and Full Year 2003 Results* (press release), Mar. 2, 2004.

[131] *Id.*

[132] Cablevision Systems Corp., *Cablevision Systems Corporation Reports Second Quarter 2004 Results* (press release), Aug. 9, 2004.

[133] Charter Communications Inc., *Charter Reports Fourth Quarter and Year 2003 Financial and Operating Results* (press release), Feb. 19, 2004.

[134] Charter Communications Inc., *Charter Communications Reports Second Quarter 2004 Financial and Operating Results* (press release), Aug. 9, 2004.